

U.S. Patent Application No. 10/597,233

DERWENT-ACC-NO: 1974-76497V

DERWENT-WEEK: 197614

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TITLE: Corrosion resistant copper alloy conts. gallium and silicon for better resistance to seawater and inorg acids

PATENT-ASSIGNEE: FURUKAWA ELECTRIC CO LTD[FURU]

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE
JP 49040226 A	April 15, 1974	JA
JP 76007617 B	March 9, 1976	JA

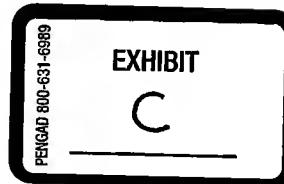
APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
JP 49040226A	N/A	1972JP-085184	August 25, 1972

INT-CL-CURRENT:

TYPE	IPC	DATE
CIPP	C22C9/00	20060101

ABSTRACTED-PUB-NO: JP 49040226 A



BASIC-ABSTRACT:

Golden Cu alloys having improved resistance to sea water and inorg. acid (H₂SO₄, HNO₃) contain 1-40 Ga and 0.1-15 wt.% Si. In an example, a Cu-30% Si alloy is melted at 1200 degrees and a Cu-60% Ga alloy is added. The mixt. is cast, forged at 760-850 degrees, hot-rolled, and annealed at 600 degrees in vacuum for 30 min to obtain a golden Cu alloy contg. 13.9 Ga and 0.8 wt.% Si. The wt. losses in sea water at 20 degrees are 0.7, 0.6, and 0.7 mg after 30, 60, and 120 days, resp., compared to 13, 15, and 15 for a Cu-24, 37n-17.6% Ni alloy. The alloy is resistant to corrosive media such as 35% HCl and 80% H₂SO₄.

TITLE-TERMS: CORROSION RESISTANCE COPPER ALLOY GALLIUM

SILICON SEA ACID

DERWENT-CLASS: M26

CPI-CODES: M26-B03S; M26-B03X;